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(54) PERISTALTIC PUMP

(71) Applicant: **DEKA Products Limited Partnership**, Manchester, NH (US)

(72) Inventors: **Dean Kamen**, Bedford, NH (US); **John M. Kerwin**, Manchester, NH (US); **Colin H. Murphy**, Cambridge, MA (US); **Christopher C. Langenfeld**, Nashua, NH (US); **Michael J. Slate**, Merrimack, NH (US); **Michael S. Place**, Manchester, NH (US); **Larry B. Gray**, Merrimack, NH (US)

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(57) **ABSTRACT**

A peristaltic pump having at least first, second, and third stages is provided. The peristaltic pump includes a plunger, inlet and outlet valves, a spring, and an actuator. The plunger actuates toward and away from a tube, the inlet valve is upstream of the plunger, the outlet valve is downstream of the plunger, the spring biases the plunger toward the tube, and the actuator mechanically engages and disengages from the plunger. In the first stage, the inlet valve is opened and the plunger is actuated from the tube, in the second stage, the inlet valve is closed, the plunger is actuated toward the tube, and the actuator is mechanically disengaged from the plunger, and in the third stage, the outlet valve is opened. In the third stage or in a fourth stage, the actuator actuates the plunger toward the tube to discharge fluid downstream past the outlet valve.